GOALI PROGRAM OBJECTIVES

- Leverage NSF research award investments to increase collaboration between academic research labs and industry.
  - GOALI: Collaborative Research Projects (Most awards)
    - Detailed plan for collaboration with strong industry commitment of time and resources to enhance academic research capabilities
  - GOALI: Faculty and Students in Industry (Approximately ~ 5% of awards)
    - Faculty and Students gain hands-on experience in industry facility
  - GOALI: Industry Personnel in Academe (Very low percentage of awards)
    - Industry personnel interact with academe providing a new perspective for curriculum development and research objectives while also serving as a mentor for those interested in careers in industry.
- Enhance education by providing industry experience to academic professionals
  - The partnerships will lead to improved curriculum and education as academic professionals obtain a broader perspectives and learn more real world application examples to include in their educational programming.
- Enhance training of graduate students and post-docs to facilitate the development of a cross-trained workforce valuable to academia and industry.
  - Participation in GOALI will provide participants (graduate students, post docs and/or faculty) experiences that will enhance their knowledge of research translation and industrial operations beyond the usual academic research experience.

GOALI LONG-TERM LOGIC MODEL

INPUTS	PROJECT ACTIVITIES	OUTPUTS	IMMEDIATE OUTCOMES	INTERMEDIATE OUTCOMES	LONG-TERM OUTCOMES/ IMPACT
Funding and logistics • GOALI provides 18-20% of award, reviewing program provides the remainder • Industry commitment to the partnership with documentation Intellectual Property agreement Expertise NSF-funded researchers Process, Materials, and Resources • Industry professionals compensated time • Industry equipment and maintenance • Proprietary data Student and Postdoc Mentoring Plans Dissemination Plan	Educate and train academics to consider commercialization for research products Provide on-the-job experience in industry for graduate students, post-docs, and faculty Establishment of a relationship between academic research and industry partners Leveraging of additional capital from sources outside the university or NSF e.g. other Federal agencies	Students, Postdocs and PIs are trained for industrial positions Transfer of new knowledge about industry practices and standards Facilitation of High Risk/High Reward projects Publications with industry partners are developed Intellectual Property is created A subset of partners continue the relationship after the life of the award	**Industry** Enlarged recruiting talent pool Diverse perspectives improve R&D Patent and license applications for technology developed during GOALI collaborations **Academia** Extension of in-house research capability Alignment of efforts with viable technology options Direct and more immediate impact of research on technology New applications of GOALI research are developed Researchers and/or students pursue further funding for the technology **NSF** GOALI funds enable collaboration across directorates	**Industry** Increased fundamental research efforts Increased number of cross-trained professionals which can be resources for both industry and academic projects Improved manufacturing processes Increased efficiency due to fresh perspectives and new insight from academic partners **Academia** Increase in academically trained staff transitioning to industry careers Increased appeal of classes delivered by educators with industry experience Academics incorporate new companies and apply for NSF transition funds (I-Corps, SBIR)	**Industry** Small and medium sized businesses have continued opportunities for mutually beneficial partnerships Highly qualified and diverse workforce **Academia** Improved transition of GOALI funded trainees to careers in industry University continues to supports and promote similar partnerships

Possible Indicators for GOALI

Human Capital Development

- Number of students, post-docs or faculty supported by GOALI who go on to positions in industry
  - Where are these positions?
- Number of students and postdocs trained by GOALI PI

Curriculum Development

- PI reported changes in curriculum or course material related to their industry partnership
- PI reported changes in mentoring resulting from industry partnership

Industry Collaboration

- Number of participants pursuing a continued relationship with their GOALI partners or pursuing involvement with other academics

Academic culture that values Academic-Industry Partnerships

- Number of GOALI PIs submitting to other programs (e.g. I-Corps, SBIR etc.), or other NSF programs, or other federal agencies
- Number of publicly available patents or licenses purchased from university IP
- Number of PIs reporting career changes/enhancements or research approaches as a result of the relationship sponsored by the GOALI award
- Number of publications supported by the GOALI award
- Number of new research applications identified as a result of the GOALI partnership
- Number of coauthored publications by academic and industry partners after the award

Data Sources for GOALI Indicators

RPPR/Annual Report

- Publications supported by the GOALI award
- Number of patents or licenses purchased from university IP
- Number of students and postdocs trained by GOALI PI

Other NSF Data Systems

- Number of GOALI PIs submitting to other programs (e.g., I-Corps, SBIR etc.) or other NSF programs
- Number of new or continuing awards from NSF

Life-of-award Monitoring System

- Number of GOALI PIs submitting to other federal agencies

Post-award Monitoring System

- Publications on technology and/or advancements in the project area supported by the GOALI award
- Number of GOALI related patents or licenses purchased from university IP after the award
- Number of academic participants pursuing continued relationship with their GOALI partners or with other industry partners
- Number of industry participants pursuing continued relationship with their GOALI partners or other academic partners
- Number of GOALI PIs submitting to other federal agencies
- Number of new or continuing awards from other agencies or institutions leveraged from the GOALI award
- Number of students, postdocs, or faculty supported by GOALI who go on to take positions in industry
- Number of revised curricula stemming from GOALI funded industry exposure
- Number of GOALI PIs reporting changes in mentoring approaches as a result of the industry partnership
- Number of new research applications identified as a result of the GOALI partnership

Other Data Sources (University Reporting, Google Scholar, Internal NSF)

- Number of coauthored publications by academic and industry partners after the award
- Number of similar partnerships via GOALI or other avenues that the university continues to support and promote